

AMENDMENTS TO THE SPECIFICATION:

Please add the following new paragraph at page 18, after numbered line 18, as follows:

United States Patent Application number US2003/021266, entitled "SCHEDULING THE DISPATCH OF CELLS IN NON-EMPTY VIRTUAL OUTPUT QUEUES OF MULTISTAGE SWITCHES USING A PIPELINED HIERARCHICAL ARBITRATION SCHEME" by Oki et al, describes how pipe-line based matching scheduling for input-buffered switches relaxes the timing constraint for arbitration by providing a scheduling scheme for a multi-stage switch arrangement. Oki et al describe an $kn \times kn$ switch arrangement having k input modules, each of the input modules comprising a group of n input ports and k output modules, each output module comprising a group of n output ports. A number m of central modules are arranged between the input modules and the output modules, such as a three-stage switch is provided. Oki et al describe how each input module has m outgoing links L_i , each link L_i connecting the input module to a different one of the m central modules, and each of the m central modules has k outgoing links L_o , each link L_o connecting the central module to a different one of the k output modules. Within each of the k input module, a number of virtual output queues (VOQs) are provided, each associated with one of the nk output ports. Each input module has n input ports, resulting in each of the nk VOQs being capable of receiving in any given timeslot at most n cells from n input ports. Each VOQ is able to send just one cell to a central module in one cell timeslot. Within each of the input modules the nk VOQs are grouped into k groups of n VOQs.

Oki et al describe a multiple phase cell dispatch scheme in which the n VOQs of an input module and m outgoing links of the input module are matched in a first phase, and then an outgoing link L_i of an input module is matched to an outgoing link L_o of a central module in a

second phase. A hierarchical scheme is also described in which for each outgoing link of an input module, a master arbiter selects a group of VOQs from among a number of candidate groups, and a slave arbiter selects a VOQ from amongst the n VOQs belonging to the selected group.